

## DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-3, 5, 7, 8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806)
3. Regarding claims 1-2, 5, 7-8, 10-12 Samson-Himmelstjerna discloses an adhesive tape for bandaging cable harnesses (abstract) comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027), Suitable material envisaged for the textile backing include, in particular polyester or cotton fibers (para 0050) and the interlayer is composed of double sided adhesive tape (para 0056) and also discloses the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup>, which falls in the range of claim limitation (para 0085) and discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based on different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057), the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, which reads on the claim 5, the interlayer is composed of double sided adhesive tape (para 0055), as can be seen in the figure para 0055, which clearly suggests that interlayer C covers the entire surface of the outer layers A and B. Samson-Himmelstjerna also discloses adhesive coating applied to the backing has a

basis weight of 25 to 80 g/m<sup>2</sup> (para 0085) and also discloses the self adhesive compounds such as polyacrylates or silicones (para 0057).

4. Samson-Himmelstjerna discloses a method for wrapping an elongate product guiding tape in a helical spiral around the elongate product (para 0019), a method of wrapping an elongate product, especially cable harnesses with a tape (abstract), Samson-Himmelstjerna discloses a backing layer having an outer layer and second outer layer composed of polyester and double sided adhesive composed of self adhesive compound such as acrylate or silicone adhesive similar to the used by the applicant of the present invention, it therefore would be intrinsic that the adhesive tape for cable harnesses is highly abrasion resistant.

5. It would be obvious to one of ordinary skill in the art at the time of invention to optimize routine experimentation and chose the basis weight between 30 and 80 g/m<sup>2</sup> for the inter layer C to get the desired thickness to have improved structural strength and rigidity of the adhesive tape. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

6. Regarding claim 3, Samson-Himmelstjerna discloses an abrasion resistant tape for bandaging cable harnesses comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027) and the

interlayer is composed of double sided adhesive tape (para 0057). However, Samson-Himmelstjerna fails to mention that the abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 “scrape abrasion resistance”) is at least 150% of the sum of the abrasion resistance of the individual piles.

7. However, Samson-Himmelstjerna discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based of different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057) and the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup>, which falls in the range that the applicant has disclosed in his specification. Samson-Himmelstjerna also discloses the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, similar to the backing material as used by the applicants in his invention and also it is not found that the production methods of these are meaningful different. Therefore, it would be expected that they would intrinsically exhibit similar or substantially similar properties having abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 “scrape abrasion resistance”) is at least 150% of the sum of the abrasion resistance of the individual piles.

8. The Patent and Trademark Office can require Applicant to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on Applicants where rejection based on inherency under 35 U.S.C. § 102 or on *prima facie*

obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, In re Best, Bolton, and Shaw, 195 U.S.P.Q. 431 (CCPA 1977).

9. Claims 1-3, 5, 7-8, 10-12, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Zafiroglu (US 7622408)

10. Regarding claims 1-2, 5, 7-8, 10-12, 14-15 Samson-Himmelstjerna discloses an adhesive tape for bandaging cable harnesses (abstract) comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027), Suitable material envisaged for the textile backing include, in particular polyester or cotton fibers (para 0050) and the interlayer is composed of double sided adhesive tape (para 0057) and also discloses the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup>, which falls in the range of claim limitation (para 0085) and discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based on different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057), the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, which reads on the claim 5, the interlayer is composed of

double sided adhesive tape (para 0055), as can be seen in the figure para 0055. which clearly suggests that interlayer C covers the entire surface of the outer layers A and B.

11. Samson-Himmelstjerna also discloses adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup> (para 0085) and also discloses the self adhesive compounds such as polyacrylates or silicones (para 0057). Samson-Himmelstjerna discloses a method for wrapping an elongate product guiding tape in a helical spiral around the elongate product (para 0019), a method of wrapping an elongate product, especially cable harnesses with a tape (abstract), Samson-Himmelstjerna discloses a backing layer having an outer layer and second outer layer composed of polyester and double sided adhesive composed of self adhesive compound such as acrylate or silicone adhesive similar to the used by the applicant of the present invention, it therefore would be inherent that the adhesive tape for cable harnesses is highly abrasion resistant. However, while Samson-Himmelstjerna discloses the preferable range for the basis weight of interlayer C which overlaps slightly with the claimed range, there is no disclosure of specific basis weight as presently claimed.

12. Whereas, Zafiroglu discloses a multilayer composite, this includes a face layer, an adhesive layer and a backing layer (abstract), the adhesive layer being the interlayer between the face layer and the backing layer. The adhesive layer contains thermoplastic or thermosetting adhesives, suitable material includes PE, PP, suitable basis weight for adhesive layer range from 4 oz/yd<sup>2</sup> to about 10 oz/yd<sup>2</sup>, by converting 4 oz/yd<sup>2</sup> to grams/m<sup>2</sup>, we get 135 g/m<sup>2</sup> and converting 10 oz/yd<sup>2</sup> to grams/m<sup>2</sup>, we get 339 g/m<sup>2</sup> (col. 4, lines 48-53), which does fall in the range of the claimed basis

weight for the interlayer. The motivation for having a basis weight between 135-339 g/m<sup>2</sup> of the inter layer is to form a composite material with improved structural strength and rigidity (col. 5, lines 10-13).

13. In light of the motivation for having the interlayer with the basis weight in the range of 135-339 as taught by Zafiroglu as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer C of Samson-Himmelstjerna with the basis weight in the range of 135-339 g/m<sup>2</sup> of Zafiroglu to make the adhesive tape with improved structural strength and rigidity.

14. Regarding claim 3, Samson-Himmelstjerna discloses an abrasion resistant tape for bandaging cable harnesses comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027) and the interlayer is composed of double sided adhesive tape (para 0057). However, Samson-Himmelstjerna fails to mention that the abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 “scrape abrasion resistance”) is at least 150% of the sum of the abrasion resistance of the individual piles.

15. However, Samson-Himmelstjerna in view of Zafiroglu discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based of different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057) and the inter adhesive coating applied to the

backing has a basis weight of 25 to 80 g/m<sup>2</sup>, which falls in the range that the applicant has disclosed in his specification. Samson-Himmelstjerna also discloses the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, similar to the backing material as used by the applicants in his invention and also it is not found that the production methods of these are meaningful different. Therefore, it would be expected that they would intrinsically exhibit similar or substantially similar properties having abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 "scrape abrasion resistance") is at least 150% of the sum of the abrasion resistance of the individual piles.

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Tanaka et al. (US 2003/0118769).

17. Regarding claim 4, Samson-Himmelstjerna fails to disclose that the interlayer C has the thickness of 50 to 1000 micrometer. However, Tanaka discloses a pressure sensitive adhesive sheet having a base material layer 11 between the release agent layer and coat layer as shown in figure 1 (para 0027). The pressure sensitive adhesive layer has a thickness from about 3 to 5000 micrometer (para 0035). The motivation for having the pressure sensitive adhesive layer to be in the range of about 3 to about 5000 micrometer to have a good adhesive strength that can adhere to the outerlayers effectively.

18. In light of the motivation of having the bas material layer with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to

have the interlayer of Samson-Himmelstjerna with the thickness in the range of 1 to 5000 micrometer as taught by Tanaka to form an adhesive tape with good adhesive strength.

19. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) and Zafiroglu (US 7622408), further in view of Tanaka et al. (US 2003/0118769)

20. Regarding claim 4, Samson-Himmelstjerna in view of Zafiroglu fails to disclose that the interlayer has the thickness in the range of about 50 to 1000 micrometer, whereas, Tanaka discloses a pressure sensitive adhesive sheet having a base material layer 11 between the release agent layer and coat layer as shown in figure 1 (para 0027). The pressure sensitive adhesive layer has a thickness from about 3 to 5000 micrometer (para 0035). The motivation for having the pressure sensitive adhesive layer to be in the range of about 3 to about 5000 micrometer to have a good adhesive strength that can adhere to the outerlayers effectively.

21. In light of the motivation of having the bas material layer with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer of Samson-Himmelstjerna with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka to form an adhesive tape with an good adhesive strength.

22. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Samson-Himmelstjerna (US 2003/0068945).

23. Regarding claim 9 Samson-Himmelstjerna discloses an adhesive tape for bandaging cable harnesses (abstract) comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027), Suitable material envisaged for the textile backing include, in particular polyester or cotton fibers (para 0050) and the interlayer is composed of double sided adhesive tape (para 0056) and also discloses the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup>, which falls in the range of claim limitation (para 0085) and discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based on different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057), the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, which reads on the claim 5, the interlayer is composed of double sided adhesive tape (para 0055), as can be seen in the figure para 0055, which clearly suggests that interlayer C covers the entire surface of the outer layers A and B. Samson-Himmelstjerna also discloses adhesive coating applied to the backing has a basis weight of 25 to 80 g/m<sup>2</sup> (para 0085) and also discloses the self adhesive compounds such as polyacrylates or silicones (para 0057). Samson-Himmelstjerna discloses a

backing layer having an outer layer and second outer layer composed of polyester and double sided adhesive composed of self adhesive compound such as acrylate or silicone adhesive similar to the used by the applicant of the present invention, it therefore would be intrinsic that the adhesive tape for cable harnesses is highly abrasion resistant. However, Samson-Himmelstjerna fails to disclose that the elongate product comprising sheathing the elongate product with a tape in its axial direction.

24. Whereas, Samson-Himmelstjerna'945 discloses wrapping an elongate product especially cable harnesses with a sheath, the elongate product being enveloped by the sheath in the axial direction and there being a self adhesive tape present on at least one edge region of the sheath (para 0025).

25. It would have been obvious to one of ordinary skill in the art at the time of invention to wrap an elongate product especially cable harnesses with an adhesive tape of Samson-Himmelstjerna'806 in the axial direction as taught by Samson-Himmelstjerna'945 motivated by the desire to make the wrap which is relatively easy to tear by hand (Samson-Himmelstjerna'945, para 0025). It would be obvious to one of ordinary skill in the art at the time of invention to optimize routine experimentation and chose the basis weight between 30 and 80 g/m<sup>2</sup> for the inter layer C to get the desired thickness to have improved structural strength and rigidity of the adhesive tape. As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

***Response to Arguments***

26. Applicant's arguments filed 10/3/2011 have been fully considered but they are not persuasive. Applicant argues that interlayer C is not covering the entire surface area of B, however, it should be noted that the interlayer is composed of double sided adhesive tape (para 0055), as can be seen in the figure demonstrated in para 0055, which clearly suggests that interlayer C covers and connects the entire surface of the outer layers A and B. The two adhesives laminated on the backing are considered an interlayer C.

27. Applicant arguments with respect to claim 9 have been moot in view of new grounds of rejections as set forth above.

***Conclusion***

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

29. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONAK PATEL whose telephone number is (571)270-1142. The examiner can normally be reached on Monday to Friday 8 AM EST to 6PM EST.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alicia Chevalier can be reached on 571-272-1490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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